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CABLE SUPPORTING DEVICE

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FIG. 1

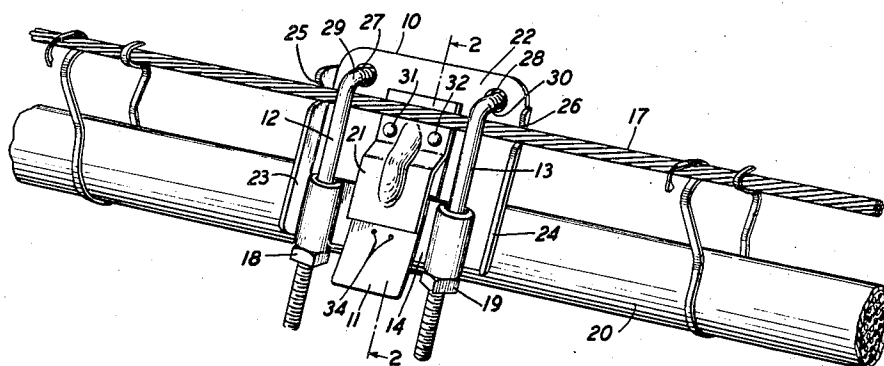


FIG. 2

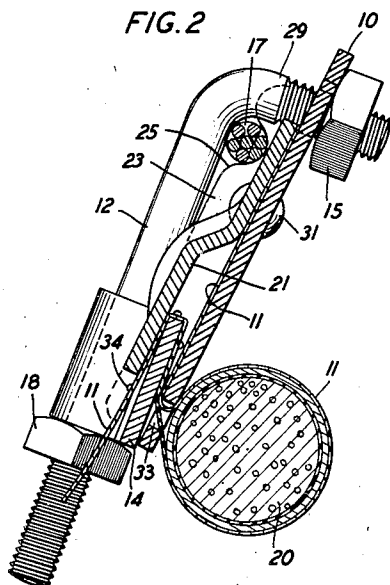
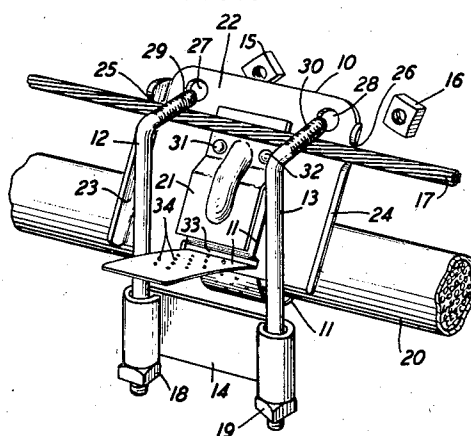


FIG. 3



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CABLE SUPPORTING DEVICE

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3 Claims. (Cl. 248-61)

This invention relates to supporting devices and more particularly to a device for suspending an electrical transmission cable from a messenger or supporting strand, said strand being firmly secured to poles spaced at suitable intervals along the transmission line.

An object of this invention is to provide a device which will grip the cable sufficiently to prevent it from slipping when the supporting strand is on a down grade and yet do no damage to the sheath of the cable.

Another object of the invention is the provision of a device for supporting an aerial cable in which the means for securing the cable in the device is wholly independent of the means for securing the supporting device to the strand.

A further object of the invention is the provision of a clamping device which may be readily adjusted to accommodate the various sizes of strand and cable.

Heretofore it has been a common practice to support aerial cables from a supporting strand on a down grade by means of a somewhat cumbersome device known as a grade clamp. This clamp usually consisted of a pair of heavy steel or malleable iron side-pieces which were secured to the supporting strand and enclose the cable to be supported. Not only did this device contain a relatively large number of parts, but means had to be provided so that various sizes of cable could be accommodated, there being no provision in this clamp to vary the size of the cable embracing means. The grade clamp forming the subject of this application has relatively few parts, which will not only accommodate any size of cable, but will accommodate any size of supporting strand.

In accordance with this invention a supporting device is provided which comprises a channel-shaped steel supporting plate or body portion having an offset retaining lug secured thereto and a steel strap, of suitable length, secured between said lug and said supporting plate, said strap extending in parallel relation with respect to said lug, but projecting some distance beyond. Adjacent the upper end of the supporting plate the sides of the channel are notched to form a seat for the supporting strand. In close proximity to these notches there are located two L-shaped bolts which are threaded at each end, the upper ends passing through holes in the upper end of the supporting plate and having nuts thereon for drawing the top of the bolts down into contact with the supporting strand which is positioned in the notches. The lower ends of

the L-shaped bolts pass through a yoke which forces the strap upwardly between the lug and the supporting plate when the nuts on the bottom of these bolts are tightened, thereby causing the strap, which now encircles the cable, to be drawn tightly therearound and secured in position.

Referring now to the drawing:

Fig. 1 is a perspective view illustrating the cable supporting device secured to the messenger or supporting strand and firmly embracing the cable;

Fig. 2 is a sectional view partly in cross-section taken on line 2-2 of Fig. 1; and

Fig. 3 is an exploded view in perspective illustrating the associated parts.

As shown in the accompanying drawing, applicant's improved cable support comprises four major portions, namely, a body portion 10, a metal strap 11, a pair of L-shaped bolts 12 and 13, and a yoke member 14. Nuts 15 and 16 are provided to secure the support to the strand 17 and nuts 18 and 19 cooperate with the yoke 14 to secure the strap 11 around the cable 20 by forcing the yoke upward between the lug 21 and the body member 10.

The body portion 10 is constructed from a single piece of metal and comprises a flat portion 22 which is provided with the upstanding edges 23 and 24. Located in the upturned edges 23 and 24 adjacent the upper end of the member 10 are the V-shaped strand positioning notches 25 and 26. In the upper corners of the member 10 adjacent said V-shaped notches are the apertures 27 and 28 through which the upper ends 29 and 30 of the L-shaped bolts 12 and 13 pass. These bolts are secured in place by means of the nuts 15 and 16 and when tightened cause the strand 17 to be firmly gripped between the under side of the L-shaped bolts and the bottom of the V-shaped notches, thereby preventing movement therebetween.

Rigidly secured to the body member 10 by means of the rivets 31 and 32 is the lug 21. This lug is offset and extends downwardly in parallel relation with respect to the member 10. Secured between the lug 21 and the member 10, where the two are joined together by means of the rivets 31 and 32, is the strap 11. This strap extends downward in the same direction as the lug, but some distance away from the member 10.

As shown in Fig. 2, the strap 11 passes through a slot 33 in the member 10 encircles the cable 20, passes again through the slot 33 and over the

yoke 11. When the yoke 11 is forced upwards by means of the nuts 18 and 19 it will push the free portion of the strap upwardly between the lug 21 and the body member 10. The strap 11 is provided with embossings 34 to increase the holding power of the strap by preventing it from slipping.

In order to install the supporting device, the lower nuts 18 and 19; that is, the nuts just below the yoke 14, are loosened until the yoke can be disengaged from the lug and clear the slot 33 in the supporting plate through which the strap 11 passes (Fig. 2). The yoke and the L-shaped bolts 12 and 13 are pulled outwardly from the body member 10 so that the strand 17 may be positioned in the V-shaped notches 25 and 26. In this position the supporting device 10 will then hang below the strand 17 and rest on the upper surface of the cable 20. The strap 11 is then passed through the slot 33, wrapped around the cable 20 and passed up again through the slot 33 in front of the lug 21. The strap 11 is then pulled up snug around the cable 20 and bent back over the upper edge of the yoke 14. The lower nuts 18 and 19 are then tightened evenly. This forces the yoke 14 upwardly and carries with it the strap 11. Upon continued tightening of the nuts 18 and 19, the strap moves upwardly and is forced under the lug 21 between said lug and said body portion 10, thereby causing the strap 11 to firmly grip the cable. The upper nuts 15 and 16 are then tightened until the L-shaped bolts firmly hold the strand 17 in the base of the V-shaped notches 25 and 26.

It has been found in actual installations that a considerable amount of time and labor is saved by the use of this device and due to the fact that the means for securing the cable in the supporting device is wholly independent of the means for securing the device to the strand, the cable will not be damaged. Consequently, the life of the cable will be materially increased.

While there is shown and described herein the preferred embodiment of the invention, it is understood that it is not limited or confined to the precise details of construction herein disclosed, as various modifications may be made without departing from the spirit of the invention.

What is claimed is:

1. A device for supporting aerial cable from a messenger or supporting strand comprising a body member, an offset lug and a strap mounted on said member, a plurality of bolts positioned on said body member for securing it to the strand, said bolts having means on the lower ends thereof for forcing said strap between said body member and said lug.

2. A device for supporting an aerial cable from a messenger or supporting strand comprising a channel-shaped body member, strand receiving notches located in the sides of said channel and diametrically opposed, a plurality of bolts on said body member adjacent said notches for securing the strand therein, an offset lug and a flexible strap mounted on said channel-shaped member between the sides thereof, a slot in said channel-shaped member adjacent said lug through which said strap passes and means on the lower ends of said bolts for forcing said strap between said body member and said lug.

3. In a cable supporting device adapted to be secured to a supporting strand, a plate, a pair of L-shaped bolts passing through said plate, a yoke slidably mounted on said bolts, an offset lug mounted on said plate, a flexible metallic strap secured between said lug and said plate, a slot in said plate adjacent said lug through which said flexible strap is adapted to pass, nuts on the lower ends of said bolts for forcing said yoke against said strap to tighten it about the cable and nuts on the upper ends of said bolts for securing the plate to the supporting strand.

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